MCH Data Brief

September 2016

Gastroschisis

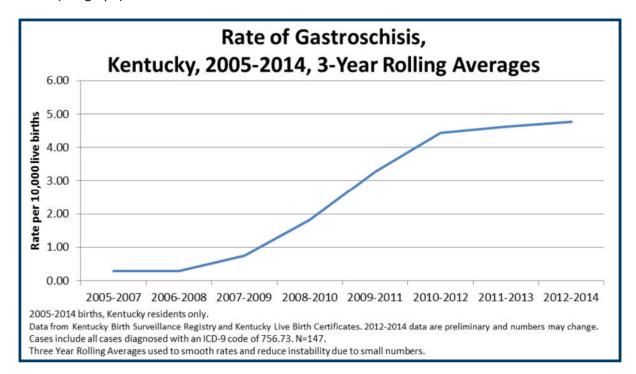
Gastroschisis is a birth defect of the abdominal wall, which occurs early in fetal development and can usually be diagnosed between the tenth and fourteenth weeks of pregnancy. It is characterized by an opening (of any size) in the abdomen through which abdominal organs protrude. The bowel, stomach, and liver may be outside of the baby's body. Because the organs are not covered in a protective sac, the bowel can become irritated, causing it to shorten, twist, or swell. For that reason, gastroschisis must be surgically repaired soon after birth, a process which involves placing the abdominal organs inside the body and repairing the abdominal wall. Even after the repair, infants with gastroschisis can have problems with feeding, digestion, and absorption of nutrients.

Causes

Multiple genetic and environmental factors likely influence the development of gastroschisis, although no specific genetic changes are known to be causative.¹

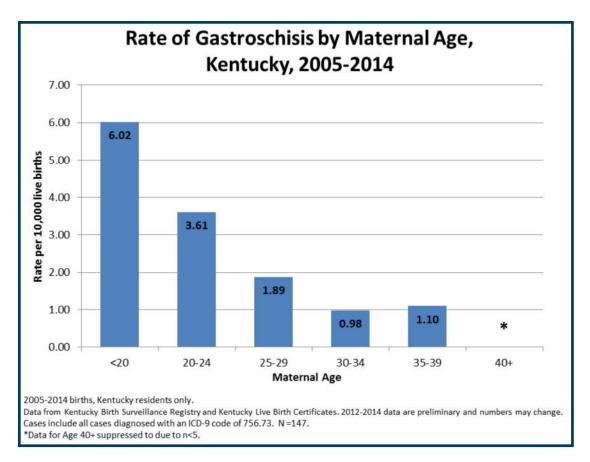
How Common is Gastroschisis?

- There are an average of 15 cases annually in Kentucky. That corresponds to 2.6 cases per 10,000 live births.
- There are approximately 1,871 cases of gastroschisis annually in the U.S.³ That corresponds to 4.5 cases per 10,000 live births.
- According to a study using data across the U.S., from 1995-2012 the prevalence of gastroschisis increased for all maternal age groups.⁴ Kentucky Birth Surveillance Registry (KBSR) data from 2005-2014 replicates this trend (see graph).



Risk Factors

- **Alcohol and tobacco use.** According to 2005-2014 KBSR data, women who smoke during pregnancy have at least an 80% greater risk of having a child with gastroschisis compared to non-smokers. Consumption of alcohol during pregnancy also increases the risk of having a child with gastroschisis.
- Young maternal age (<20 years old). According to 2005-2014 KBSR data, the rate of gastroschisis in young mothers is approximately six times the rate in mothers over age 30 (see graph below). While mothers age 20-24 also have a higher risk, the difference is not as dramatic.



Prevention

Early and consistent prenatal care helps a woman monitor her health during pregnancy. Her provider can promote a healthy pregnancy by helping her manage health conditions, medications, and diet.

References

- 1. National Institutes of Health. Abdominal wall defects. Genetics Home Reference. http://ghr.nlm.nih.gov/condition/abdominal-wall-defect Last updated August 2012. Accessed February 24, 2016.
- 2. Centers for Disease Control and Prevention. Facts about gastroschisis. National Center on Birth Defects and Developmental Disabilities. http://www.cdc.gov/ncbdd/birthdefects/gastroschisis.html. Last updated November 12, 2015. Accessed February 16, 2016.
- 3. Parker SE, Mai CT, Canfield MA, et al. Updated national birth prevalence estimates for selected birth defects in the United States, 2004-2006. National Center on Birth Defects and Developmental Disabilities. Birth Defects Res A Clin Mol Teratol. 2010 Dec;88(12):1008-16. doi: 10.1002/bdra.20735.
- 4. Jones AM, Isenburg J, Salemi JL, et al. Increasing prevalence of gastroschisis 14 States, 1995–2012. MMWR MMWR Morb Mortal Wkly Rep 2016;65:23–26.

